

PURCHASE DESCRIPTION

SWR METER

TS2MN-C

- 1.0 GENERAL This procurement requires a tuned 1 kHz voltmeter/amplifier, calibrated in dB and SWR to be used with square law detectors and slotted lines. The equipment shall also be capable of operating from either an ac line or portable dc power source.
- 2.0 CLASSIFICATION The tuned voltmeter described herein shall meet the requirements of MIL-T-28800(), Type III, Class 5, Style E, Color R for Navy shipboard, submarine, and shore applications, with the following exceptions:
 - a.. The Electromagnetic Interference requirements of MIL-T-28800() are limited to CE01, CE03, CS01, CS02 (0.05 to 100 MHz), CS06, RE01 (back panel search excluded), RE02 (14 kHz to 10 GHz), and RS03.
- 3.0 OPERATIONAL REQUIREMENTS The equipment shall be capable of measuring signals within the parameters and accuracies specified herein.
 - 3.1 Frequency Characteristics
 - 3.1.1 Tuned Frequency: 1 kHz
 - 3.1.2 Bandwidth: At least 15 Hz to 120 Hz
 - 3.2 Measurement Characteristics
 - 3.2.1 Dynamic Range: At least 70 dB
 - 3.2.2 Attenuator Accuracy: ± 0.05 dB/10 dB step
 - 3.3 Input Impedance Characteristics
 - 3.3.1 Unbiased Range: At least 50 to 200 ohms
 - 3.3.2 High Impedance: 2.5 k Ω to 10 k Ω
 - 3.3.3 Bolometer: Low or high current into 200 Ω
 - 3.4 Output For Driving X-Y Recorder: At least 0 to 1 Vdc
 - 3.4.1 Source Impedance: 1000 ohms
 - 3.4.2 Connector: BNC female
 - 3.5 Meter Scales (calibrated for square-law detectors)
 - 3.5.1 SWR: At least 2 ranges, 1 to 4 and 3.2 to 10
 - 3.5.2 dB: At least 0 to 10
- 4.0 GENERAL REQUIREMENTS
 - 4.1 Power: 115/230 Vac $\pm 10\%$, single phase, 50, 60 or 400 Hz $\pm 10\%$, 5 VA maximum, or rechargeable battery for portable operation, at least 24 hours continuous operation per charge
 - 4.2 Lithium Batteries: Per MIL-T-28800, lithium batteries are prohibited without prior authorization.

Requests for approving the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.

- 4.3 Dimensions: The total volume shall not exceed 8,700 cm³ (530 in³).
- 4.4 Weight: The total weight shall not exceed 4.1 kg (9 lb).
- 4.5 Calibration Interval: The calibration interval shall be 12 months minimum. The equipment shall be within all accuracy requirements specified herein, with a 72% or greater confidence factor following a calibration interval of 12 months.